CLAIMS:

1. A method for detecting an analyte in a sample, the method comprising contacting the sample with a detection marker-analyte binding partner complex wherein the detection marker is connected indirectly to the analyte binding partner by a bridging complex to preserve or enhance the availability of binding sites on the analyte binding partner for the analyte, and wherein the bridging complex comprises proteins X_1 X_2 and wherein X_1 comprises a particle, dimer, multimer, chimera, fusion protein or equivalent structure which binds to or comprises the analyte binding partner and also binds reversibly to X_2, wherein X_2 is bound by X_1 and is also bound, fused or otherwise connected to the detection marker, and detecting the detection marker to indicate the presence of the analyte in the sample.

2. The method of claim 1, wherein components of the detection marker-analyte binding partner complex are stored or used separately or together.

3. The method of claim 2, wherein the detection marker-X_2 component and the X_1-analyte binding partner component are stored separately and used successively.

4. The method of any one of claims 1 to 3, wherein the analyte-binding partner is an isolated, recombinant, synthetic, naturally occurring, chemical or proteinaceous molecule.

5. The method of any one of claims 1 to 4, wherein the analyte binding partner is a proteinaceous molecule.

6. The method of claim 5, wherein X_1 comprises a particle, dimer, multimer, chimera, fusion protein or equivalent structure which comprises the analyte binding partner.

7. The method of any one of claims 1 to 6, wherein the analyte is capable of binding specifically to a protein.

8. The method of claim 7, wherein the analyte is an antibody.

9. The method of claim 8, wherein the antibody is one of an IgM, IgE, IgA and IgG antibody.

10. The method of claim 8, wherein the analyte binding partner is an antigen.

11. The method of claim 6, wherein the particle is a viral particle or a virus-like particle.

12. The method of claim 11, wherein the virus-like particle is a recombinant hepadnavirus virus-like particle (VLP) comprising one or more copies of the analyte binding partner.

13. The method of claim 6, wherein X_1 is a dimer and the analyte binds to one molecule of the dimer and X_2 binds to the other molecule of the dimer.

14. The method of claim 6, wherein X_1 is in multimeric form.

15. The method of claim 6, wherein X_1 is in chimeric form.

16. The method of claim 6, wherein X_1 is a fusion protein.

17. The method of claim 6, wherein X_2 comprises an antigen binding molecule, protein binding molecule, nucleic acid binding molecule, carbohydrate binding molecule or lipid binding molecule.

18. The method of claim 17, wherein the binding molecule binds to the analyte binding partner or to a different epitope in X_1.

19. The method of claim 17, wherein the detection marker comprises one or more of a mass tag, dye, colloidal or magnetic-particle, enzyme, radioactive molecule, chemiluminophore, flurophore, phosphorescent molecule, luminescent molecules such as firefly luciferase, metal and metalloid, metal complexes, microparticles, nucleic acids, phosphors, dielectric, paramagnetic and/or phosphorescent particles, photoproteins, quantum dots, radioisotopes, redox complexes, substrates, viruses or other equivalent molecule.

20. A method for detecting a specific antibody in a sample, the method comprising contacting the sample with a detection marker-antigen complex wherein the antigen comprises an epitope which is specifically recognised by the antibody, and wherein the detection marker is connected indirectly to the antigen via a bridging complex which preserves or enhances the availability of epitopes on the antigen for the antibody, and wherein the bridging complex comprises bridge binding partners X_1 and X_2 wherein X_1 comprises a particle, dimer, multimer, chimera, fusion protein or equivalent structure which binds to or comprises the antigen and binds reversibly to X_2, wherein X_2 comprises an antibody or a protein binding molecule which is bound by X_1 and which is bound, fused or otherwise connected to the detection marker, and detecting the detection marker to indicate the presence of the antibody in the sample.

21. The method of claim 20, wherein the detection marker-X_2 component and the X_1-analyte binding partner component are stored separately and used successively.

22. The method of claim 21, wherein X_2 binds to the antigen or a different epitope in X_1.

23. The method of claim 20, 21 or 22, wherein X_1 is a dimeric form of the antigen and wherein X_2 binds to the antigen.

24. The method of claim 20, 21 or 22, wherein X_1 is a dimeric form of the antigen and wherein X_2 and the specific antibody bind to the same or different epitopes.

25. The method of claim 20, 21 or 22, wherein X_1 is a viral particle or virus-like particle.

26. The method of claim 25, wherein the viral particle is one or more recombinant, chimeric or naturally occurring hepatitis viral particles.

27. The method of claim 25, wherein the virus-like particle (VLP) is an avian hepadnavirus-like particle.

28. The method of claim 27, wherein the VLP is a recombinant avian hepadnavirus-like particle and X_2 binds to the antigen.

29. The method of claim 27, wherein the VLP is a recombinant hepadnavirus-like particle and X_2 binds to an epitope of X_1 which is not part of the antigen.

30. The method of claim 27, wherein the VLP is a recombinant duck hepadnavirus-like particle and X_2 is a monoclonal antibody determined by the S or L antigen of duck Hepadnavirus.

31. The method of claim 20, 21 or 22, wherein X_1 is a fusion protein comprising the antigen and a second binding protein which binds reversibly to X_2, wherein X_2 is an antibody or a protein or carbohydrate binding molecule bound by the second antigenic component and wherein X_2 is also bound, fused or otherwise connected to the detection marker.

32. The method of claim 31, wherein the protein or carbohydrate binding molecule is a carbohydrate and X_1 comprises a carbohydrate binding protein.

33. The method of claim 31, wherein the protein binding molecule is a ligand and X_1 comprises a receptor.

34. The method of claim 31, wherein the protein or carbohydrate binding molecule is a protein and X_1 comprises a protein binding protein.

35. The method of claim 20, wherein the detection marker is a mass tag, dye, colloidal particle, enzyme, radioactive molecule, chemiluminophore, flurophore, phosphorescent molecule, luminescent molecules such as firefly luciferase, metal and metalloid, metal complexes, microparticles, nucleic acids, phosphors, dielectric, paramagnetic and/or phosphorescent particles, photoproteins, quantum dots, radioisotopes, redox complexes, substrates, viruses or other equivalent molecule.

36. The method according to claim 35, wherein the detection marker is a colloidal particle, such as colloidal gold, silver or selenium.

37. The method of claim 20, wherein the analyte is immobilised to a solid support prior to detection.

38. The method of claim 20, wherein the components of the complex are stored or used separately or together.

39. The method of any one of claims 1 to 38 when used for detecting one or a plurality of specific analytes in a sample.

40. The method of any one of claims 20 to 38 when used for detecting one or a plurality of specific antibodies to hepatitis such as hepatitis A and/or B and/or C and/or E in a sample.

41. The method of claim 40, wherein the antibodies are selected from IgA, IgM, IgE and IgG antibodies.

42. The method of claim 40, wherein the method is a chromatographic or immunochromatographic method.

43. A kit for detecting a specific antibody in a sample, in compartmental form comprising a portion to receive the sample, and a portion to receive a detection marker-antigen complex wherein the antigen comprises an epitope which is recognised by the specific antibody, if present in said sample, and wherein the detection marker is connected indirectly to the antigen by a bridging complex to preserve the availability of epitopes on the antigen for the antibody and detection thereof relative to a control, and wherein the bridging complex comprises bridge binding partners X_1 and X_2 wherein X_1 comprises a particle, dimer, multimer, chimera, fusion protein or equivalent structure which binds to or comprises the antigen and binds reversibly to X_2, wherein X_2 comprises an antibody or an protein binding molecule which is bound by X_1 and which is bound, fused or otherwise connected to the detection marker.

44. The kit of claim 43, wherein the detection marker-X_2 component and the X_1-analyte binding partner component are stored separately and used successively.

45. The kit of claim 43 or 44, wherein X_2 binds to the antigen or a different epitope in X_1.

46. The kit of claim 43, 44 or 45, wherein X_1 is a dimeric form of the antigen and wherein X_2 binds to the antigen.

47. The kit of claim 43, 44 or 45, wherein X_1 is a dimeric form of the antigen and wherein X_2 and the specific antibody bind to the or different epitopes.

48. The kit of claim 43, 44 or 45, wherein X_1 is a viral particle or virus-like particle.

49. The kit of claim 48, wherein the viral particle is a recombinant, chimeric or naturally occurring hepatitis viral particles.

50. The kit of claim 48, wherein the virus-like particle (VLP) is an avian hepadnavirus-like particle.

51. The kit of claim 50, wherein the VLP is a recombinant avian hepadnavirus-like particle and X_2 binds to the antigen.

52. The kit of claim 50, wherein the VLP is a recombinant hepadnavirus-like particle and X_2 binds to an epitope of X_1 which is not part of the antigen.

53. The kit of claim 52, wherein the VLP is a recombinant duck hepadnavirus-like particle and X_2 is a monoclonal antibody determined by the S antigen of duck hepatitis B virus.

54. The kit of claim 43, 44 or 45, wherein X_1 is a fusion protein comprising the antigen and a second antigenic component which binds reversibly to X_2, wherein X_2 comprises an antibody or an antigen binding molecule bound by the second antigenic component and wherein X_2 and is also bound, fused or otherwise connected to the detection marker.

55. The kit of claim 54, wherein the antigen binding molecule is a carbohydrate and X_1 comprises a carbohydrate binding protein.

56. The kit of claim 54, wherein the antigen binding molecule is a carbohydrate and X_1 comprises a carbohydrate binding protein.

57. The kit of claim 54, wherein the antigen binding molecule is a ligand and X_1 comprises a receptor.

58. The kit of claim 54, wherein the antigen binding fragment is a protein and X_1 comprises a protein binding protein.

59. The kit of claim 43, wherein the detection marker comprises one or more of a mass tag, colloidal particle, enzyme, radioactive molecule, chemiluminophore, flurophore, phosphorescent molecule, luminescent molecules such as firefly luciferase, metal and metalloid, metal complexes, microparticles, nucleic acids, phosphors, dielectric, paramagnetic and/or phosphorescent particles, photoproteins, quantum dots, radioisotopes, redox complexes, substrates, viruses or other equivalent molecule.

60. The kit according to claim 59, wherein the detection marker is a colloidal particle, such as colloidal gold, silver or selenium.

61. The kit of claim 43 or 44, wherein the specific antibody is immobilised to a solid support prior to detection.

62. The kit of any one of claims 43 to 61, wherein components of the complex are stored or used separately or together.

63. The kit of any one of claims 43 to 62 when used for detecting one or a plurality of specific antibodies to hepatitis A and/or B and/or C and/or E in a sample.

64. The kit of claim 63, wherein the antibodies are selected from IgA, IgM, IgE and IgG antibodies.

65. The kit of claim 44, wherein the kit is a chromatographic kit or an immunochromatographic kit.